



**Bovine Hypothalamus Extract (10 mg/ml; 5 x 1 ml)  
(BHE-5)**

Catalog #0613

**Product Description**

The hypothalamus is a critical brain region linking the nervous and endocrine systems through the pituitary gland. The hypothalamus regulates vital homeostatic processes, including metabolism, bodily temperature, reproductive behaviors and food and water intake. Bovine hypothalamus extract (BHE) contains numerous growth factors and hormones that promote endothelial [1], epithelial [2, 3], and hybridoma cell proliferation [4], especially in low serum and serum-free media.

BHE from ScienCell Research Laboratories is obtained from the extraction of fresh frozen bovine hypothalami in saline solution using a modified protocol [1]. The hypothalami are collected from USDA inspected facilities and found free of contagious diseases.

**Concentration**

10 mg/ml. Sterile filtered.

**Product Use**

Recommended concentration range: 5-100 µg/ml. The final working concentration, however, should be optimized for individual cell type and culture conditions. **Note:** Color may vary between lots and lipoprotein precipitates may be present. This does not affect the biological activity. BHE is for research use only. It is not approved for human or animal use, or for application in *in vitro* diagnostic procedures.

**Storage**

Store BHE between -20°C and -80°C until ready for use. Aliquot to avoid repeated freeze-thaw cycles.

**Shipping**

Dry ice.

**References**

- [1] Maciag T, Cerundolo J, Ilsley S, Kelley PR, Forand R. (1979) "An endothelial cell growth factor from bovine hypothalamus: Identification and partial characterization". *Proc. Natl. Acad. Sci. USA* 76: 5674-5678.
- [2] Gilchrist BA, Calhoun JK, Maciag T. (1982) "Attachment and growth of human keratinocytes in a serum-free environment". *Journal of Cellular Physiology* 112: 197-206.
- [3] Maciag T, Nemore RE, Weinstein R, Gilchrist BA. (1981) "An endocrine approach to the control of epidermal growth: serum-free cultivation of human keratinocytes". *Science* 211: 1452-1454.
- [4] Pintus C, Ransom JH, Evans CH. (1983) "Endothelial cell growth supplement: a cell cloning factor that promotes the growth of monoclonal antibody producing hybridoma cells". *J Immunol Methods* 61: 195-200.

*Caution: If handled improperly, some components of this product may present a health hazard. Take appropriate precautions when handling this product, including the wearing of protective clothing and eyewear. Dispose of properly.*